

October 4, 2016

# CITIZENS ADVISORY BOARD LIQUID WASTE (LW) READINESS FOR SALT WASTE PROCESS FACILITY (SWPF)

Keith Harp, Program Manager  
SWPF Integration



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BCP	Baseline Change Proposal	LW	Liquid Waste
CHA	Consolidated Hazards Analysis	MCU	Modular Caustic Side Solvent Unit
CRF	Change Request Form	OAC	Operations Acceptance Checklist
DCS	Distributed Control System	PPT	Precipitate Pump Tank
DSA	Documented Safety Analysis	RCO	Radiological Controls Organization
DSS	Decontaminated Salt Solution	RSS	Raw Salt Solution
DWPF	Defense Waste Processing Facility	SC	Safety Class
FE	Field Engineering	SE	Strip Effluent
FTE	Full Time Equivalent	SEFT	Strip Effluent Feed Tank
HDB	H-Area Diversion Box	SEHT	Strip Effluent Hold Tank
IAL	Inter Area Line	SPT	Sludge Pump Tank
LCO	Limiting Condition of Operation	STP	Submersible Transfer Pump
LPPP	Low Point Pump Pit (511-S)	SWPF	Salt Waste Processing Facility
		TSR	Technical Safety Requirements

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- **Video**
- **Accomplishments**
- **Tank 21**
- **Tank 49**
- **DWPF Modifications**
- **West Transfer Line Modifications**
- **TiO<sub>2</sub>**



## ■ East Transfer Lines

- Completed installation of the Decontaminated Salt Solution (DSS) line extension from the Salt Waste Processing Facility (SWPF) tie in point toward the Tank 50 to Saltstone Inter Area Line (IAL) and backfilled the excavation



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SWPF Integration Overview

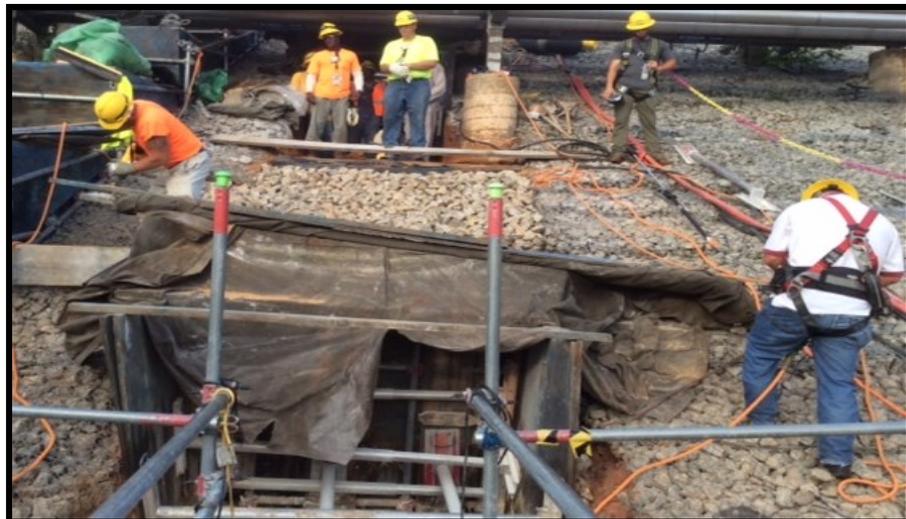
## ■ West Transfer Lines

- Design and specification to procure shoring services is approved for the excavation at the 511-S Low Point Pump Pit (LPPP) for future tie in of SWPF piping
- Completed final interference excavations at 511-S and as-built the electrical duct bank
- Installed fiber optic cable to provide for Distributed Control System (DCS) communications between facilities
- Initiated weekly outage planning meetings to ensure task readiness for the 2017 piping tie in outage activities
- Contract awarded to Parsons for RadCon staffing services

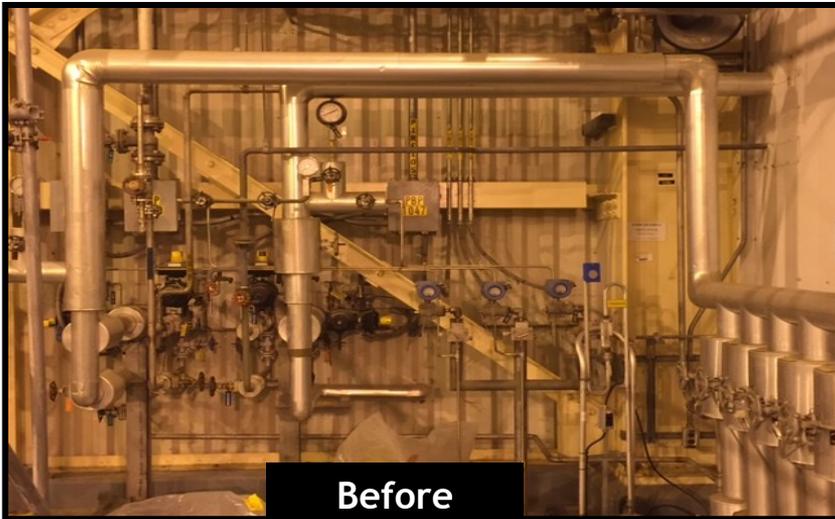


## ■ Blend and Feed Modifications

- Completed installation and backfill of Tank 49 Phase I and II piping sections
- Completed Phase III piping fabrication
  - Plan to initiate excavation activities of Phase III piping in October
- Prepping for valve box modifications
- Continuing shielding modifications at Tank 21



- **Defense Waste Processing Facility (DWPF) Modifications**
  - Completed fabrication of jumpers required for Modular Caustic Side Solvent Unit (MCU) Continued Operations
    - Completed jumpers are being stored at S-Area laydown area
  - Completed removal of abandoned piping and supports from the west side of 511-1S to provide space for new instrument cabinets for Precipitate Tank Safety Class (SC) Interlocks



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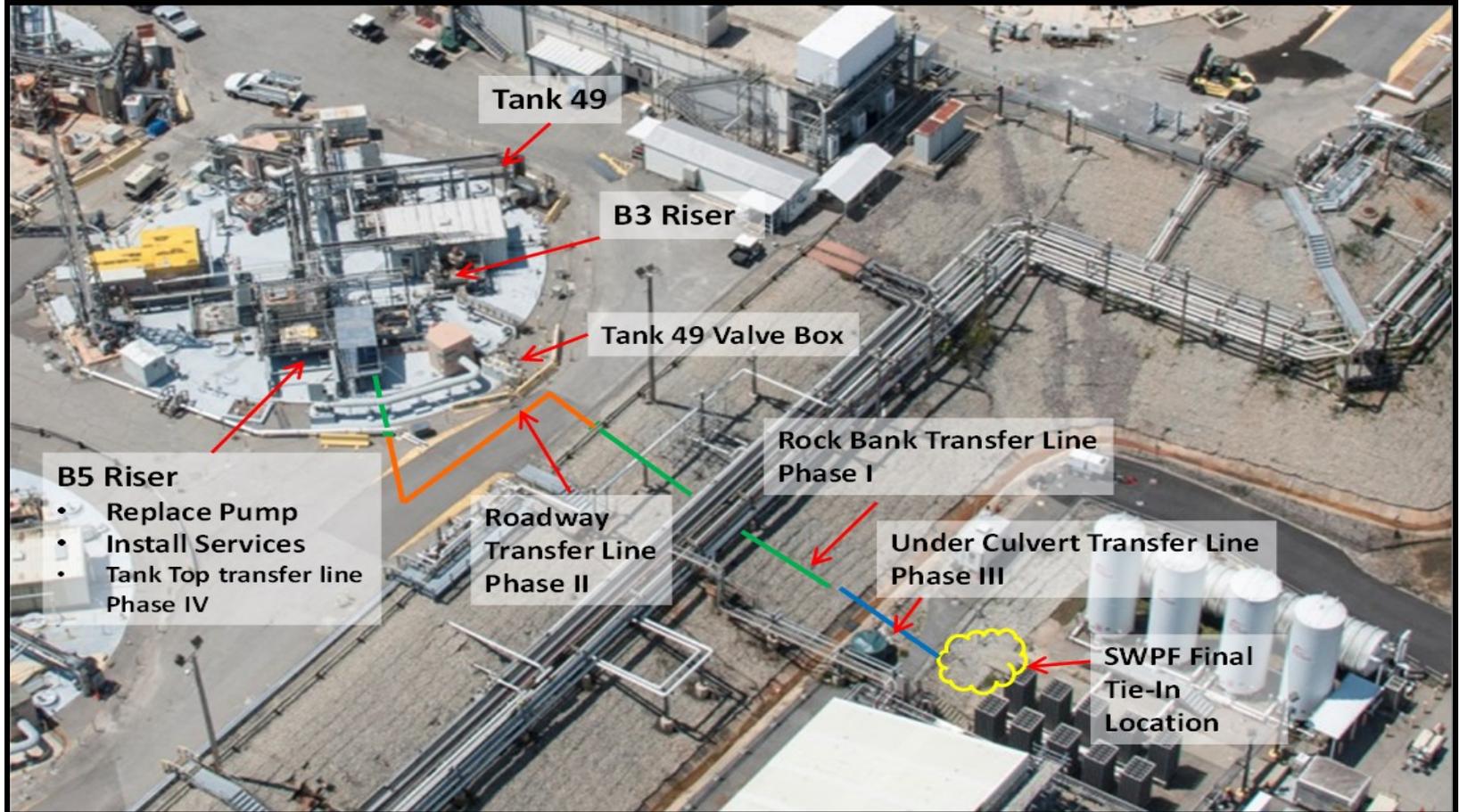
**Tank 21 South Riser**

## ■ Status

- Develop and issue a shielding calculation for the south riser
  - *Complete*
- Design the required shielding around the south riser
  - *Complete*
- Installation of required shielding
  - Construction in progress

# Tank 49 Feed Tank Readiness

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- **MCU Continued Operations**
  - **Tank 49 B3 pump modifications**
    - Design in progress
- **Tank 49 Valve Box modifications**
  - Fabricate wall nozzle Gray-loc blanks; *Complete*
  - Install wall nozzle blanks
  - Fabricate one 2 valve jumper
  - Fabricate Tank 49 Valve Box access plugs
- **Fabrication, installation and backfill of the new SWPF feed line**
  - Phase I & II Piping - *Complete*
  - Phase III Piping
    - Design complete
  - Phase IV Piping
    - Design complete, fabrication underway

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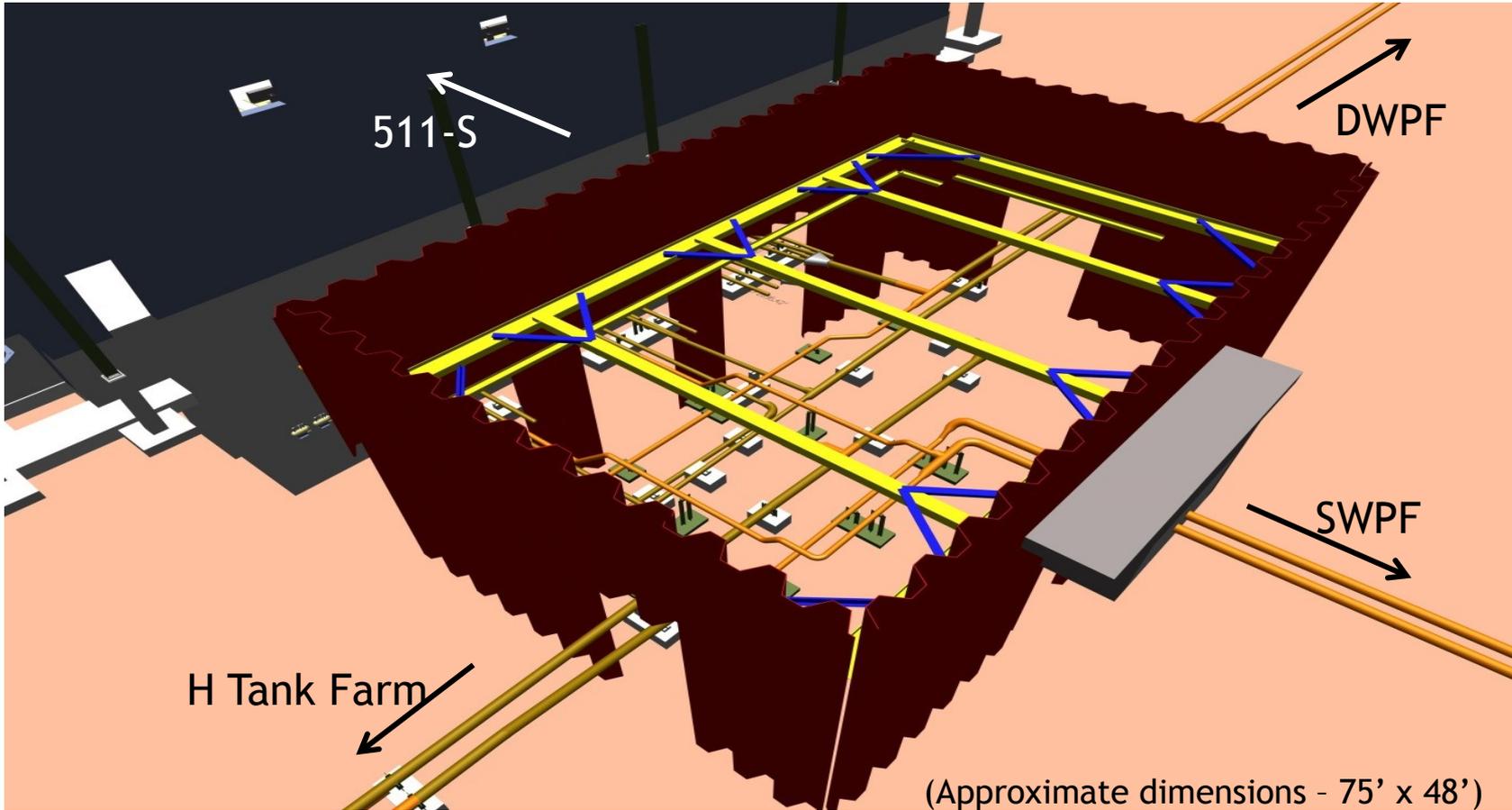


**511-S Low Point Pump Pit (LPPP)**

- **Design**
  - Leak Detection Boxes - *Complete*
  - Inter Area Software
  - Sump Pump Jumpers
- **Task ready to install leak detection box plugs and conductivity probes**
- **Fabrication of Recycle Cell crossover jumper - *Complete***
- **Fabrication of the Precipitate Cell crossover jumper**
- **Fabrication of the Thermowell electrical jumper**
- **Fabrication of Thermowell assembly**
- **Installation of SC interlock non-intrusive scope**
- **Fabricate and install missile shield at 511-S to protect SC interlocks**
- **Procure material for SWPF jumpers**
- **Perform required Consolidated Hazards Analysis (CHA) and Documented Safety Analysis (DSA) activities (submit Change Request Form)**
  - Submit the MCU Continued Operations DSA/Technical Safety Requirements (TSR)
  - Continue to perform calculations for SWPF Integrated Operations

# 511-S Shoring Installation

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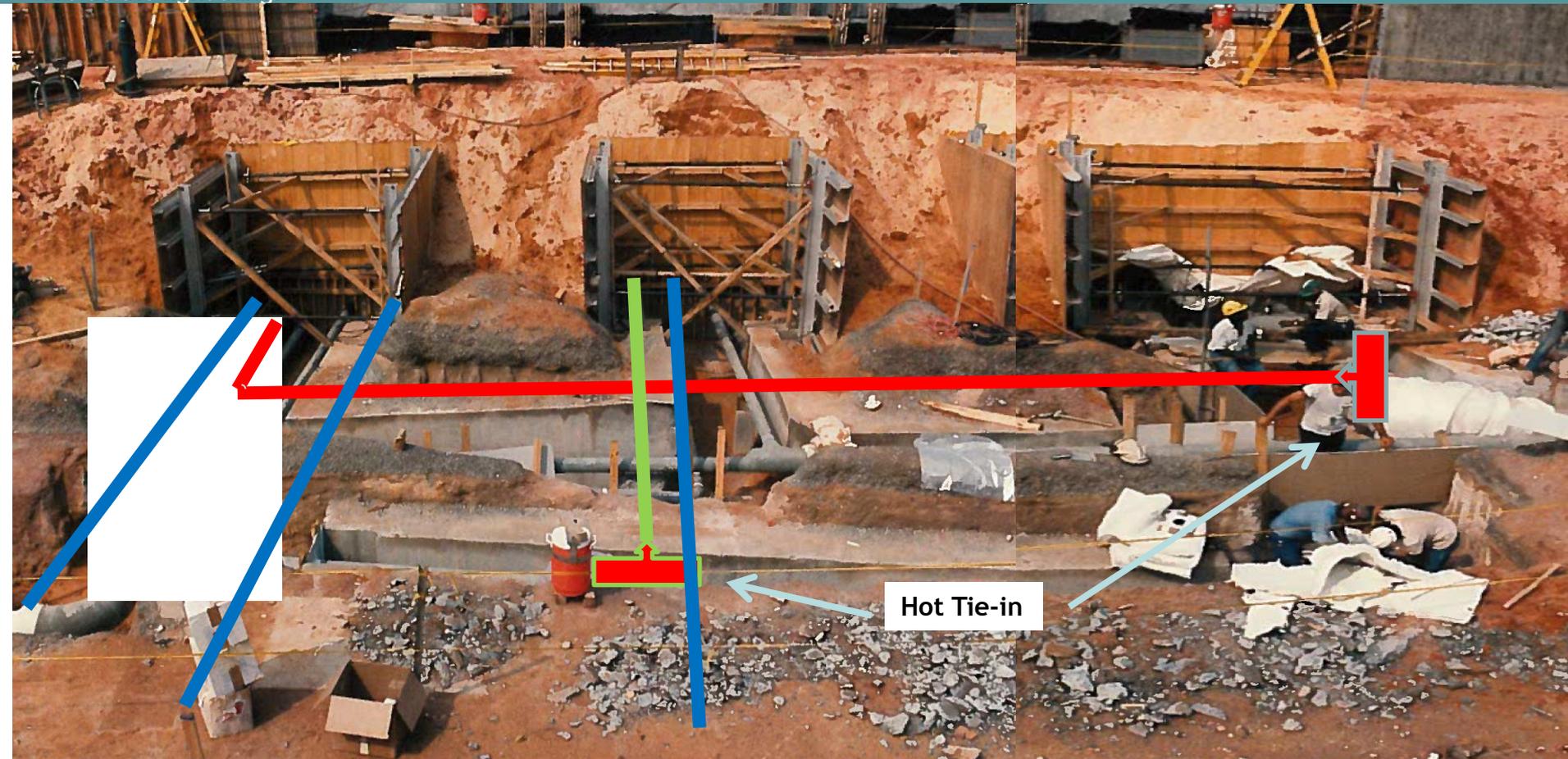




- Fabrication of piping spool pieces
- Completion of the design for the shoring - *Complete*
- Completion of a scope of work for procurement of the shoring - *Complete*
- Award of a contract for shoring fabrication and installation
- Removal of excavation interferences
- Installation of sheet piling
- Excavation of soil down to level to install walers and struts
- Installation of walers and struts
- Excavation of soil down to 4' above transfer line
- Task ready for flushing
- Pull fiber cable and Install DCS hardware

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West Transfer Lines



- **VSL developed 50 glass samples for testing**
  - All testing is complete
- **Durability model has been revised & approved**
- **Viscosity model has been revised & approved**
- **Evaluation of the Liquidus data is underway**
  
- *Results thus far are favorable but not confirmed until Liquidus model is revised*